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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/756,982	01/14/2004	Susumu Inatsugu	MAT-8498US	3712
23122	7590	03/23/2005	EXAMINER	
RATNERPRESTIA P O BOX 980 VALLEY FORGE, PA 19482-0980			CAO, HUEDUNG X	
			ART UNIT	PAPER NUMBER
			2821	

DATE MAILED: 03/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/756,982

Applicant(s)

INATSUGU ET AL.

Examiner

Huedung X. Cao

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 January 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 9 and 10 is/are rejected.
- 7) ☐ Claim(s) 5-8 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 January 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 01/14/04, and 04/01/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. Figures 11(a) and (b) should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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3. Claims 1-4, and 9-10 are rejected under 35 U.S.C. 102(e) as being anticipated by BOYLE (6,624,795).

As per claim 1, Boyle teaches "an antenna", comprising:

a flat-plate ground plane (Boyle, the printed board, column 3, lines 24-27; column 4, lines 1-5);

a first antenna element with its one end connected to a feeding point and its intermediate portion folded by a plurality of times, which is extended upward from said ground plane (Boyle, the meander-line section 102; figure 1, column 2, lines 35-48); and a second antenna element with its one end connected to the other end of said first antenna and with the other end thereof connected to said ground plane, which has an intermediate portion extended upward from said ground plane (Boyle, the meander-line section 104; figure 1, column 2, lines 35-48, 52-53), wherein the intermediate portion of said second antenna element is disposed in a symmetrical relation with the intermediate portion of said first antenna element (Boyle, the symmetrical relation of the sections 102 and 104; figures 1, 5, 6).

Claim 2 adds into claim 1, "the intermediate portion of said first antenna element and the intermediate portion of said second antenna element are arranged in symmetrically opposed to each other" (Boyle, the symmetrical relation of the sections 102 and 104; figures 1, 5, 6).

Claim 3 adds into claim 2 "the other end of said first antenna element and one end of said second antenna element are connected to each other via a conductive plate" (Boyle, the top loading 202; column 3, lines 31-35).

Claim 4 adds into claim 2 "said first antenna element and said second antenna element are formed in plate-like shape" (Boyle, the printed board, column 3, lines 24-27; column 4, lines 1-5).

Claim 9 adds into claim 1 "the intermediate portion of said first antenna element and the intermediate portion of said second antenna element are arranged in symmetrical relation with each other on same plain surface" (Boyle, the sections 102 and 104 are arranged on the printed board, column 3, lines 24-27; column 4, lines 1-5).

Claim 10 adds into claim 9 "a substrate extended upward from said ground plane, wherein the intermediate portion of said first antenna element and the intermediate portion of said second antenna element are arranged on same surface of said substrate" (Boyle, the sections 102 and 104 are arranged on the printed board as straight upward antenna used in a communication device, column 1, lines 12-14, column 3, lines 24-27; column 4, lines 1-5).

Allowable Subject Matter

4. Claims 5-8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. The following is a statement of reasons for the indication of allowable subject matter: the Prior Arts fail to teach the features: wherein the intermediate portion of said first antenna element is arranged on one surface of said substrate, and the intermediate

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portion of said second antenna element is arranged on the other surface opposed to the substrate surface where the intermediate portion of said first antenna element is disposed.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Ali (US 6184836 B1) discloses a small antennas for internal mounting within wireless communicators that can operate within multiple frequency bands.

Spall (US 6040803) discloses a dual band diversity antenna having parasitic radiating element.


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Inquires

7 Any inquiry concerning this communication or earlier communications from the examiner should be directed to Huedung Cao whose telephone number is (571) 272-1939.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong, can be reached on (571) 272-1834. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

8. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, consisting of a series of loops and a long horizontal stroke extending to the right.

Huedung Cao
Patent Examiner